INSTALLATION, CONFIGURATION AND OPERATION OF FRITZ!BOX

FRITZ!

DSL

FRITZ! Box

FRITZ!Box

Power   LAN   USB   DSL   INFO

HIGH-PERFORMANCE COMMUNICATION BY ... AVM

FRITZ!Box

This manual and the software it describes are protected by copyright. The manual and software as presented are the object of a license agreement and may be used only in accordance with the license conditions. The licensee bears all risk in regard to hazards and impairments of quality which may arise in connection with the use of this product.

This manual and the software it describes may not be transmitted, reproduced or altered in whole or in part, in any form, by any means, nor may they be translated into any other natural or computer language. The creation of a backup copy for personal use is excepted. The information hereby made available to the licensee may be communicated to third parties only with the written permission of AVM.

This software and documentation have been produced with all due care and checked for correctness in accordance with the best available technology. AVM disclaims all liability and warranties, whether express or implied, relating to this product's quality, performance or suitability for any given purpose which deviates from the performance specifications contained in the product description.

AVM will not be liable for damages arising directly or indirectly from the use of the manual or related software, nor for incidental or consequential damages, except in case of intent or gross negligence. AVM expressly disclaims all liability for loss of or damage to hardware, software or data as a result of direct or indirect errors or destruction and for any costs, including ISDN, GSM and DSL connection charges, related to the software and manual supplied and due to incorrect installations not performed by AVM itself.

The information in this manual and the software it describes are subject to change without notice for the purpose of technical improvement.

We offer a manufacturer's warranty for this original product. The conditions of this warranty are contained in the WARRANTY.PDF file in the SOFTWARE/INFO folder on the product CD included with delivery.

The product identification code is part of the license agreement.

VoIPon   www.voipon.co.uk   sales@voipon.co.uk   Tel: +44 (0)1245 808195   Fax: +44 (0)1245 600030

Contents

VoIPon   www.voipon.co.uk   sales@voipon.co.uk   Tel: +44 (0)1245 808195   Fax: +44 (0)1245 600030

Typographical Conventions

The following highlighting and icons are used to designate important information:

The hand indicates important instructions that must be observed to avoid malfunctions.

FRITZ! marks useful hints to assist you in working with the product.

The table below explains the highlighting used in this manual.

Highlighting	Function	Example:
Quotation marks	Keys, buttons, icons, tabs, menus, commands	"Start / Programs" or "Enter"
Capital letters	Path and file names in running text	SOFTWARE\INFO.PDF or README.DOC
Pointed brackets	Variables	‹CD-ROM drive›
Typewriter font	Information to be typed in using the keyboard	`a:\setup`
Gray italics	Tips, instructions and warnings	*...for more information, see...*

Safety Instructions

Observe the following instructions to protect yourself from physical harm.

- Do not open the FRITZ!Box housing. The device contains hazardous components and should only be opened by authorized repair technicians.

- Never let liquids get inside the FRITZ!Box. Otherwise, electric shocks or short circuits may result.

- Do not install FRITZ!Box during an electrical storm. Disconnect FRITZ!Box from the power mains during electrical storms.

- FRITZ!Box is intended for indoor use only.

1 This Is FRITZ!Box

FRITZ!Box is a DSL modem for fast and easy Internet access. All you have to do to go online is connect FRITZ!Box with the computer and with the DSL line and configure an Internet connection.

FRITZ!Box is equipped with two LAN ports and one USB port, so that up to three computers can be connected. Each connected computer can establish an Internet connection over FRITZ!Box.

Other network devices can be connected to the FRITZ!Box LAN ports as well, including game consoles and network hubs.
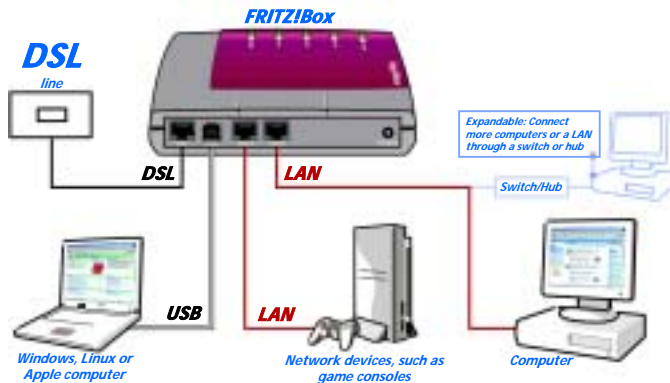
Connection possibilities of FRITZ!Box

With FRITZ!Box all connected computers can share one Internet access. FRITZ!Box contains a router for this purpose. The firewall integrated in the router protects your network from attacks from the Internet.

All connected computers are networked together and can access shared resources on each other's drives.

This manual contains information about installing, configuring and operating FRITZ!Box.

1.1 Package Contents

The box contains:

- FRITZ!Box

- one power supply unit

- one USB cable (white)

- one network cable (red)

- one DSL cable (black)

  Use the DSL cable to connect FRITZ!Box to the DSL line.

- one FRITZ!Box CD with

  – Installation Help

  – Driver software for installing FRITZ!Box at a computer's USB port

  – FRITZ!Box manual in the "Info" folder

  – FRITZ!DSL, the software package for dialing into the Internet, complete with firewall, port forwarding and budgeting

- one FRITZ!Box installation manual

- one drilling template (supplied in the installation manual)

- The Product Identification Code is printed on the back of the CD case. This number is part of your license agreement with AVM. Be sure to keep it in a safe place.

1.2   Operation Requirements

In order to operate FRITZ!Box, you must have the following:

- one DSL Line: city network providers, Standard ITU G.992.1 Annex B, T-Com 1TR112 (U-R2)

- If you want to connect FRITZ!Box over your computer's LAN interface, a computer with the following specifications is required:

  – computer with LAN port (standard network adapter Ethernet 10/100 Base-T), game console or other devices that support a network

  – To connect an additional computer with a network cable, a computer with a network adapter and a network cable are required.

  – To connect additional computers or a network, you also need an Ethernet hub or switch.

  – FRITZ!Box also can be connected to a Linux or an Apple computer via the LAN interface.

- If you want to connect FRITZ!Box over your computer's USB interface, a computer with the following specifications is required:

  – computer with USB port (USB version 1.1 or 2.0), hard drive and CD drive

  – Operating system: Microsoft Windows XP, Windows Me, Windows 2000, Windows 98, Mac OS X from Version 10.3.3 or SUSE Linux from 9.0 upwards

- To install the FRITZ!DSL software package, the minimum computer requirements are:

  – 300 MHz Pentium II processor with Windows XP, 2000, Me or 98 and CD drive

  – 32 MB RAM

  – 20 MB free memory on the hard drive

1.3   FRITZ!Box LEDs

The LEDs on your FRITZ!Box indicate the following conditions:

LED	Event type
Power	shows the operation status of FRITZ!Box
	remains lit when the device has electrical power and the DSL line is ready for operation
	flashes if the device is connected to the power mains, but the connection to DSL has been lost
LAN	remains lit when a network connection is active to at least one connected device (network adapter or network hub/switch)
USB	remains lit when a USB connection to a computer is active and the computer is switched on
DSL	remains lit when an Internet connection is active (PPP)
Info	flashes when the system software is being updated

1.4 Technical Specifications

- approximate dimensions: 160 x 122 x 31 mm
- DSL modem in accordance with the ITU G.992.1 Annex A or B standard (depending on the model)
- one USB port (USB version 1.1)
- two LAN ports via RJ45 sockets (standard Ethernet, 10/100 base-T)
- five LEDs that signal the device status
- supply voltage: 230 V / 50 Hz
- maximum power consumption: 9 W
- average power consumption: 6 W
- data transmission rate: max. 8 Mbit/s (downstream), 1 Mbit/s (upstream)
- updatable firmware
- DHCP Server
- DSL router
- firewall and packet filter
- IP Masquerading/NAT
- conforms to CE standard

2 Starting FRITZ!Box Operation

This chapter describes the various possibilities for connecting and installing FRITZ!Box. This includes:

● mounting FRITZ!Box

● connecting FRITZ!Box to the mains and to DSL

● connecting FRITZ!Box to the computer

  You can connect FRITZ!Box to your computer by means of a network cable or a USB cable.

  These kinds of connections can be combined when multiple computers are connected.

2.1 Mounting FRITZ!Box

Set or hang up FRITZ!Box in a dry, dust-free location shaded from any direct sunlight. If you would like to connect FRITZ!Box using the USB or network cable supplied with the package, remember to consider the length of the cable and select a location close to your computer.

If you would like to hang FRITZ!Box on the wall, use the drilling template on the last page of the installation manual.

2.2 Connecting to the Power Supply and to DSL

First connect FRITZ!Box to the power supply and to DSL. For this step you need the power supply unit and the black DSL cable.

Perform the following steps:

1.   Connect FRITZ!Box to the power supply using the power supply unit.

Use only the mains adapter included with delivery. The use of other adapters may cause malfunctions.

The "Power" LED on FRITZ!Box starts to flash.

2.   Connect FRITZ!Box to the DSL line using the black DSL cable.
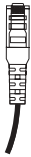
Insert one end of the cable into the DSL socket on FRITZ!Box and the other end in the socket labeled "DSL" on the DSL splitter.

Connecting FRITZ!Box to the power supply and to DSL

After connecting FRITZ!Box to DSL, the connection between the device and the DSL line is synchronized (training). This procedure can take up to 15 minutes. As soon as the connection to the DSL line is ready for operation, the "Power" LED stops flashing and stays lit.

2.3 Connecting FRITZ!Box to the USB Port of a Computer

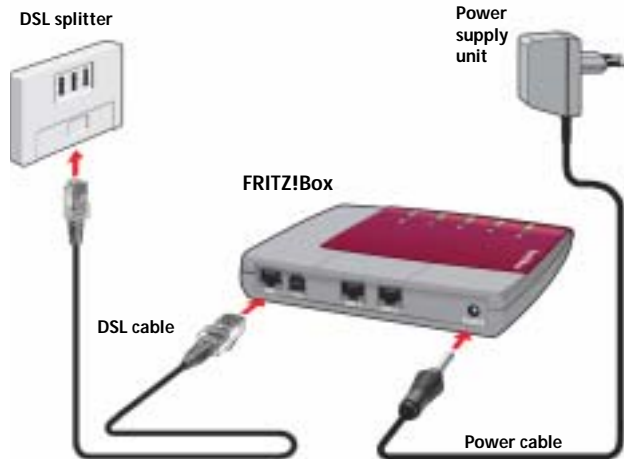If you would like to connect FRITZ!Box to your computer over a USB cable, you must install device drivers on the computer.

Read the section that describes the installation for your operating system.

In some operating systems the display of menus and folders can be changed. The following instructions are based on the standard installation of each operating system.

Installing FRITZ!Box in Windows XP

Administrator rights are required to install the driver software in Windows XP.

For this step you require the white USB cable and the FRITZ!Box CD supplied with the hardware.

Insert the FRITZ!Box CD in your CD-ROM drive to start the Installation Help automatically. Follow the instructions in the Installation Help to install FRITZ!Box at your computer's USB port.

Perform the following steps to install FRITZ!Box without using the Installation Help:

1. Connect FRITZ!Box to the power supply and to DSL as described on page 13.

2. Start the computer and then insert the FRITZ!Box CD.

3. Connect FRITZ!Box to the USB port. The USB cable has two different plugs: one is flat and rectangular and the other is square.

Pick up the USB cable and insert the flat plug into a free USB port on your computer.

4. Then insert the square connector into the socket labeled "⬛⬛⬛" on FRITZ!Box.

Connecting FRITZ!Box to the USB port of a computer

5. The Windows XP "Add New Hardware Wizard" starts. Follow the instructions displayed on the screen.

6. A message appears: "New network device installed". Confirm by clicking "Finish".

    If FRITZ!Box is installed correctly, the "USB" LED on the device will be lit up.

FRITZ!Box is now connected and ready for operation.

You can only connect to the Internet if Internet access is configured on the computer. See the section "Online with FRITZ!Box" from page 24 for information about how to configure an Internet connection.

Installing FRITZ!Box in Windows Me

Insert the FRITZ!Box CD in your CD-ROM drive to start the Installation Help automatically. Follow the instructions in the Installation Help to install FRITZ!Box at your computer's USB port.

Perform the following steps to install FRITZ!Box without using the Installation Help:
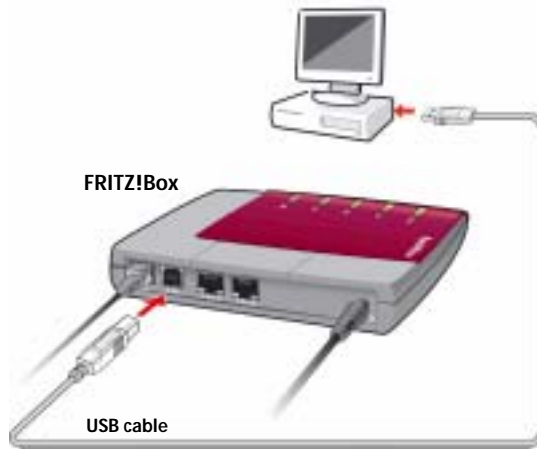
1. Connect FRITZ!Box to the power supply and to DSL as described on page 13.

2. Start the computer and then insert the FRITZ!Box CD.

3. Connect FRITZ!Box to the USB port. The USB cable has two different plugs: one is flat and rectangular and the other is square.

    Pick up the USB cable and insert the flat plug into a free USB port on your computer.

4. Then insert the square connector into the socket labeled "⟵⟶" on FRITZ!Box.

Connecting FRITZ!Box to the USB port of a computer

5. Windows Me detects a new plug-and-play device to be installed. Follow the instructions displayed on the screen.

    Keep your Windows CD ready.

6. When asked: "What would you like to do?", select the option "Automatic search for a better driver (Recommended).".

    The drivers for FRITZ!Box are installed.

7. Conclude the installation by clicking "Finish".

    If FRITZ!Box is installed correctly, the "USB" LED on the device will be lit up.

FRITZ!Box is now connected and ready for operation.

You can only connect to the Internet if Internet access is configured on the computer. See the section "Online with FRITZ!Box" from page 24 for information about how to configure an Internet connection.

Installing FRITZ!Box in Windows 2000

Administrator rights are required to install the driver software in Windows 2000.

Insert the FRITZ!Box CD in your CD-ROM drive to start the Installation Help automatically. Follow the instructions in the Installation Help to install FRITZ!Box at your computer's USB port.

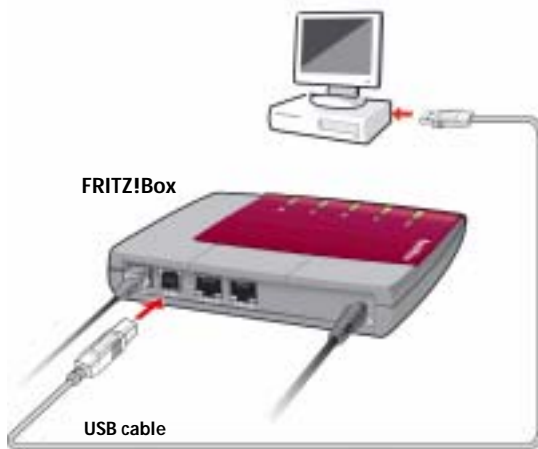Perform the following steps to install FRITZ!Box without using the Installation Help:

1. Connect FRITZ!Box to the power supply and to DSL as described on page 13.

2. Start the computer and then insert the FRITZ!Box CD.

3. Connect FRITZ!Box to the USB port. The USB cable has two different plugs: one is flat and rectangular and the other is square.

Pick up the USB cable and insert the flat plug into a free USB port on your computer.

4. Then insert the square connector into the socket labeled "⬛⟵" on FRITZ!Box.

Connecting FRITZ!Box to the USB port of a computer

5. The Windows 2000 Hardware Wizard starts automatically. Follow the instructions displayed on the screen.

6. When asked "What do you want Windows to do?", select the option "Search for the best driver for your device. (Recommended)". Confirm with "Next".

7. In the next window, select "CD-ROM drives" as the source for the driver files. Confirm with "Next".

8. The program reports that a driver was found. Click "Next" to install the driver.

   Then you are informed that a driver for the FRITZ!Box has been found.

9. Once the files have been copied onto your computer, conclude this step of installation by clicking "Finish".

   If FRITZ!Box is installed correctly, the "USB" LED on the device will be lit up.

FRITZ!Box is now connected and ready for operation.

You can only connect to the Internet if Internet access is configured on the computer. See the section "Online with FRITZ!Box" from page 24 for information about how to configure an Internet connection.

Installing FRITZ!Box in Windows 98

Insert the FRITZ!Box CD in your CD-ROM drive to start the Installation Help automatically. Follow the instructions in the Installation Help to install FRITZ!Box at your computer's USB port.

Perform the following steps to install FRITZ!Box without using the Installation Help:

1. Connect FRITZ!Box to the power supply and to DSL as described on page 13.

2. Start the computer and then insert the FRITZ!Box CD.

3. Connect FRITZ!Box to the USB port. The USB cable has two different plugs: one is flat and rectangular and the other is square.

   Pick up the USB cable and insert the flat plug into a free USB port on your computer.

4. Then insert the square connector into the socket labeled "⬥⇆" on FRITZ!Box.

Connecting FRITZ!Box to the USB port of a computer

5. Windows 98 detects a new plug-and-play device to be installed. Follow the instructions displayed on the screen.

   Keep your Windows CD ready.

6. When asked: "What do you want Windows to do?", select the option "Search for the best driver for your device. (Recommended)."

7. When the program asks where the driver is located, activate **only** the option "CD-ROM drive".

Specifying the driver location in Windows 98

8. If you are asked which driver you want to install, choose the option "The updated driver (Recommended) AVM FRITZ!Box" and click "Next" twice.

   The drivers for FRITZ!Box are installed.

9. Conclude the installation by clicking "Finish".

   If FRITZ!Box is installed correctly, the "USB" LED on the device will be lit up.

When the computer is restarted, FRITZ!Box is connected and ready for operation.

You can only connect to the Internet if Internet access is configured on the computer. See the section "Online with FRITZ!Box" from page 24 for information about how to configure an Internet connection.

2.4 Connecting FRITZ!Box to the LAN Port

The red network cable is required if FRITZ!Box is to be operated over the LAN port (network port).

Perform the following steps:

1. Connect FRITZ!Box to the power supply and to DSL as described on page 13.

2. Switch on your computer.

3. Connect one end of the red network cable supplied with the package (or of another "straight" network cable) to the LAN port of your computer.

4. Connect the other end of the network cable to one of the sockets on FRITZ!Box labeled "LAN".

FRITZ!Box

Network cable

Connecting FRITZ!Box to a computer's network adapter

If FRITZ!Box is connected correctly, the "LAN" LED on the device will be lit up.

FRITZ!Box is now connected and ready for operation.

No additional driver installation is necessary on the computer.

If you would like to connect a computer to the second LAN port as well, another straight network cable is required (not included with delivery).
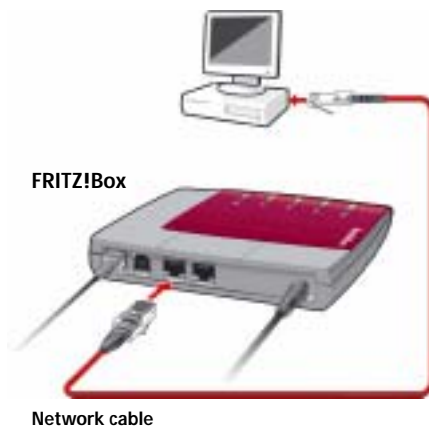
You can only connect to the Internet if Internet access is configured on the computer. See the section "Online with FRITZ!Box" from page 24 for information about how to configure an Internet connection.

2.5 Connecting FRITZ!Box to a Network Hub or Switch

To connect a network to FRITZ!Box so that multiple computers can connect to DSL, the red network cable is required.

Follow the instructions below:

1. Connect FRITZ!Box to the power supply and to DSL as described on page 13.

2. Connect one end of the red network cable supplied with the package (or of another "straight" network cable) to the uplink port of the network hub or switch.

3. Connect the other end of the network cable to one of the sockets on FRITZ!Box labeled "LAN".
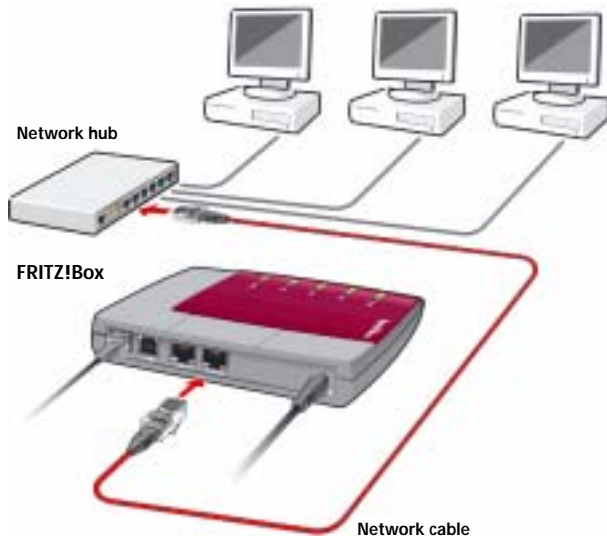
Connecting FRITZ!Box to a network hub

If FRITZ!Box is connected correctly, the "LAN" LED on the device will be lit up.

You can only connect to the Internet if Internet access is configured on the computer. See the following section for information about how to configure an Internet connection.

3 Online with FRITZ!Box

Once you have connected the FRITZ!Box, all you have to do is configure an Internet connection before going online.

Use the FRITZ!web DSL software included in the package to set up the Internet connection. Alternatively, use your Internet Service Provider's Internet access software or a Windows XP broadband connection.

Going Online with Multiple Computers

If the Internet connection is to be used jointly by all connected computers, FRITZ!Box must be switched from modem operation to router operation.

FRITZ!Box is configured as a DSL modem by default.

For information about how to set up FRITZ!Box as a DSL router, see the section "Setting up FRITZ!Box for Multiple-Workplace Operation" from page 28.

3.1 Going Online with the DSL Software FRITZ!web DSL

FRITZ!web DSL is part of the FRITZ!DSL software package included with delivery. FRITZ!web DSL connects you with the Internet in just a few steps. A number of Internet Service Providers are already configured in FRITZ!web DSL for Internet access – all you need is the access information supplied by your Internet Service Provider.

Install the FRITZ!DSL

Proceed as follows to install the software:

1. Insert the FRITZ!Box CD.

2. Select "View CD contents / Install FRITZ!DSL".

3. The "File Download" window opens. Select the "Open" button in this window.

4. The FRITZ!DSL welcome screen appears. Confirm with "Next".

5. Specify the folder in which you want to install FRITZ!DSL on your computer. Confirm with "Next".

6. The next step is to specify the program folder for FRITZ!DSL in the Start menu. Confirm with "Next".

    The system files are copied into the specified folder and the DSL software is installed on your computer.

This completes the installation of the DSL software. Confirm with "Finish".

Set up Internet Connections

FRITZ!web DSL requires the access information supplied by your Internet Service Provider in order to connect to the Internet.

To edit an existing Internet connection, proceed as follows:

1. Click "Start / All Programs / FRITZ!DSL / FRITZ!web DSL" to start FRITZ!web DSL.

2. In the Wizard, select the "New Internet Connection" button.

    Select your Internet Service Provider and enter your access information. You will be prompted to do so automatically: simply follow the instructions displayed.

Example: Dialog window for entering the access information

3. FRITZ!web DSL appears as a small status window on your screen.

Dial an Internet Connection

Proceed as follows to establish a connection to the Internet:

1. Start your browser. The connection to the Internet is dialed.
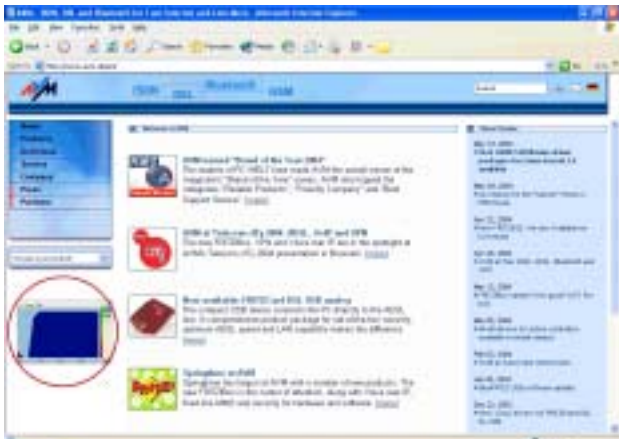
A FRITZ!web DSL connection is active; data transfer is taking place

You can keep the FRITZ!web DSL status window in the foreground of the screen so that your connections can be monitored at all times.

The FRITZ!web DSL Commands

FRITZ!web DSL can be operated using the buttons in the status window and the context menu of the right mouse button.

Speed display
Establish and clear connections
Connection icons
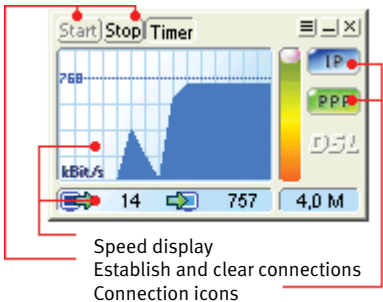
FRITZ!web DSL status window

The "Start", "Stop" and "Timer" buttons allow you to dial up and clear connections and to toggle the "Inactivity Timeout" option. Click with the right mouse button anywhere in the program interface to open the context menu and take advantage of additional commands and settings.

Two connections icons which take on different colors to display information about the negotiation of the connection protocol, data transmission and whether an Internet connection is configured.

As soon as FRITZ!web DSL has been started, an icon appears in the notification area of the task bar. Click this symbol with either mouse button to access additional options for operating FRITZ!web DSL.

For detailed information about operating FRITZ!web DSL, open the Online Help available in the context menu of the right mouse button.

3.2 Going Online with Other Access Software or a Windows XP Broadband Connection

If you do not want to go online with FRITZ!web DSL, you can also use your Internet Service Provider's access software or a Windows XP broadband connection.

Contact your Internet Service Provider for information about how to configure an Internet connection with your access software.

Proceed as follows to configure a Windows XP broadband connection:

1. Click "start / All Programs / Accessories / Communications" and start the "New Connection Wizard". Click the "Next" button.

2. First specify a network connection type. Select the option "Connect to the Internet". Click "Next".

3. In the next window, select the option "Set up my connection manually" and then click "Next".

VoIPon   www.voipon.co.uk   sales@voipon.co.uk   Tel: +44 (0)1245 808195   Fax: +44 (0)1245 600030

4. In the "Internet Connection" window, select the option "Connect using a broadband connection that requires a user name and password". Then click "Next".

5. Enter a name for the new connection and confirm by clicking "Next".

6. Enter your Internet account information. Every Internet Service Provider requires that this information be entered in a certain sequence.

    The access information required is supplied by your Internet Service Provider.

7. Confirm with "Next" and close the settings by clicking "Finish".

This concludes the settings for an Internet connection using a Windows XP broadband connection.

3.3 Setting up FRITZ!Box for Multiple-Workplace Operation

Perform the following steps to set up FRITZ!Box for multiple-workplace operation:

1. Open your Internet browser.

2. Enter "fritz.box" or "192.168.178.1" as the address to start the FRITZ!Box user interface.

The "fritz.box" address entry in the address field of the Internet browser

3. The "FRITZ!Box Overview" window is opened.

The "FRITZ!Box Overview" window

If an error message appears rather than the window, see the tip section from page 40 for suggestions on how to resolve the problem.

4. Click the "Internet Connection" command.

5. Activate the option "FRITZ!Box provides an Internet connection that can be shared (router)".

6. Enter the access information you received from your Internet Service Provider in the corresponding fields.

7. Use the timer function if your Internet connection is charged for online time. The timer clears an idle connection after the period specified here.

Be sure to use the timer function if your Internet connection is billed on the basis of online time. Otherwise idle Internet connections will not be cleared. This can lead to very high online charges.

For more information on the timer function, see the section "Internet Connection" on page 32 and the Online Help in the FRITZ!Box user interface.

8. Click the "Apply" button to implement your settings.

FRITZ!Box is now configured for multiple-workplace operation. All connected computers can access the Internet directly. FRITZ!Box provides the Internet connection for all connected computers.

Dial an Internet Connection

No further steps are necessary to establish an Internet connection. Simply start an Internet browser on any of the computers connected to FRITZ!Box and start surfing the Net!

Do not use any Internet access software, as this software and the router will dial connections to the Internet at the same time.

Make sure FRITZ!Box assigns all computers that are supposed to use this Internet access IP addresses automatically. For instructions on this setting, see the section "Setting the IP Address" on page 40.

For information about connecting FRITZ!Box to a network hub or switch, see the section "Connecting FRITZ!Box to a Network Hub or Switch" from page 23.

4 Configuring FRITZ!Box

A user interface is provided for the configuration of FRITZ!Box as a DSL router.

If you use FRITZ!Box as a DSL modem, you do not need to make any changes in the user interface.

In the user interface you can change the FRITZ!Box settings and view information about the FRITZ!Box status.

To open the FRITZ!Box user interface, start your Internet browser and enter the address "fritz.box" or "192.168.178.1".

If an error message appears rather than the window, see the guidebook section from page 40 for suggestions on how to resolve the problem.
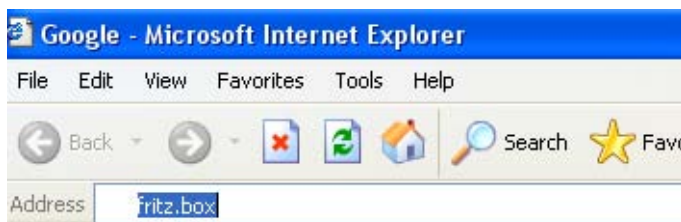
The "fritz.box" address entry in the address field of the Internet browser

The FRITZ!Box user interface has several pages, each of which can be accessed directly by clicking the menu command on the left edge.

Detailed information on the individual commands is provided in the comprehensive Online Help, which you can access with the "Help" command in the user interface.

FRITZ!Box

This page presents information about the current status of FRITZ!Box. The window is divided into three areas:

FRITZ!Box Overview

The "FRITZ!Box Overview" area displays whether FRITZ!Box is connected with DSL. It also shows whether FRITZ!Box is connected to computers by means of the LAN or USB port.

Internet Connection

The "Internet Connection" area shows whether FRITZ!Box is configured as a DSL modem (default setting) or as a DSL router.

Click the "Change..." button to change this setting.

When FRITZ!Box is configured as a DSL router, the connection status is also displayed. This section contains information about the Internet connection: the IP address assigned by the Internet Service Provider, the status of the Internet connection and the duration of the current connection.

Internet Connection

Specify on the "Internet Connection" page whether FRITZ!Box should establish the Internet connection as a router. This Internet connection can be used by all computers connected to FRITZ!Box without having to configure a separate Internet connection on each computer.

If you opt for this form of Internet access, enter the access information supplied by your Internet Service Provider for this Internet connection.

The "Use timer" option specifies that the Internet connection will be cleared whenever none of the connected computers has requested data from the Internet. Enter a time period in seconds.

The 'Port Forwarding' Button

When FRITZ!Box is configured as a router (this is the default setting), programs on your computer or LAN cannot be accessed from the Internet.

Click the "Port Forwarding" button to grant other parties from the Internet restricted access to the computers connected to FRITZ!Box by opening certain ports to incoming connections

Other parties then access your computer at the IP address you were assigned by the Internet Service Provider. If a connection is active, the IP address is displayed on the "FRITZ!Box Overview" page and in the Event Log.

Event Log

Messages about the activities and conditions of the FRITZ!Box Internet connection(s) are registered in the Event Log. These messages are sent directly by FRITZ!Box and refer only to the DSL line and events associated with FRITZ!Box's control of the Internet connection. Other actions, such as how Internet connections are controlled by programs on the connected computers, are displayed in the respective programs and not included here. See the Online Help of the user interface for an overview of the messages.

DSL Information

For the technically interested user, this window presents an overview of the most important data on the DSL connection.

The transmission speeds and the status of the DSL lines are displayed graphically in the overview.

Below the graphic are displayed the transmission mode used and the versions of the DSL software and the FRITZ!Box firmware.

The display options for this side include information on ADSL, ATM and the DSL spectrum.

System Settings

On this page you can update the firmware, restore the factory settings to FRITZ!Box and open the "Advanced Settings" area.

Updating the Firmware

Use these buttons to update the FRITZ!Box firmware.

Proceed as follows to update the firmware:

Load the new firmware on your computer:

1. Go to the AVM home page (**www.avm.de/en**), select "Download" and then "FTP Server".

   The "Cardware/FRITZBOX/Firmware" folder contains a file called "info.txt". This file contains information about new features and improvements to the new firmware.

2. The "Cardware/FRITZBOX/Firmware" folder contains a file with the suffix "image". Copy this file to your computer.

Now you have saved the new firmware on your computer. The next step is to perform the update.

1. Open your Internet browser and enter the address "fritz.box" or "192.168.178.1".

2. Select the "System Settings" menu command.

3. Click the "Update Firmware" button.

4. In the text field, enter the path to the update file. This entry can also be selected using the "Browse ..." button. The file should have the file ending ".image" and be a valid update file for FRITZ!Box.

5. Then click the "Update Firmware" button to start the update.

   The power supply to FRITZ!Box may not be interrupted during the update and while the system is restarting. Never abort an update in progress!

   The status line informs you about the progress of the update.

A message appears announcing that the update has been successfully completed. During the update procedure the "Info" LED flashes. It goes out when the update has been completed. This process may take several minutes.

As soon as the update has been completed, FRITZ!Box is restarted and immediately ready for operation.

Restoring Factory Settings

Click this button to restore the settings that were active when FRITZ!Box was delivered. All settings made during operation will be overwritten.

Restoring the factory settings means deleting all settings on FRITZ!Box along with the access information for the Internet connection. Use this function before allowing outside parties to use FRITZ!Box.

Advanced Settings

In the "Advanced Settings" area, experienced users can make settings for different system functions of FRITZ!Box, for instance for the DHCP server and traffic shaping.

Do not make any changes in this area unless you are experienced in working with network settings. Incorrect settings in this area can lead to FRITZ!Box malfunctions and interfere with access to FRITZ!Box.

When the DHCP server of FRITZ!Box is deactivated, every network adapter connected to FRITZ!Box must be assigned a fixed IP address.

Depending on the port used to connect the respective computer to FRITZ!Box, the following values must be set:

Line	settings	Address
USB	IP address: Subnet mask: Default gateway: DNS server:	192.168.179.20 255.255.255.0 192.168.179.1 192.168.179.1
LAN A	IP address: Subnet mask: Default gateway: DNS server:	192.168.181.2 through 250 255.255.255.0 192.168.181.1 192.168.181.1
LAN B	IP address: Subnet mask: Default gateway: DNS server:	192.168.178.2 through 250 255.255.255.0 192.168.178.1 192.168.178.1

Otherwise FRITZ!Box cannot be reached.

5 Removing FRITZ!Box

Follow the instructions below to remove FRITZ!Box:

If FRITZ!Box is connected to the computer's LAN port or to a network hub, all you need to do is remove the network cable and uninstall FRITZ!DSL.

If FRITZ!Box was installed at the computer's USB port, proceed as described in the following sections.

5.1 Uninstallation in Windows XP

Note that FRITZ!Box must be connected to the computer's USB port when the USB driver is removed.

Proceed as follows to remove the USB driver of FRITZ!Box in Windows XP:

1. Open "start / Control Panel / Performance and Maintenance / System".

2. Click the "Device Manager" button on the "Hardware" settings page.

3. In the "Network adapters" section of the Device Manager, select the "AVM FRITZ!Box" entry.

4. In the "Action" menu, select the "Uninstall" command.

5. Confirm the uninstallation in the following security prompt. The FRITZ!Box will be removed.

This completes uninstallation of the driver software.

5.2 Uninstallation in Windows Me and 98

Note that FRITZ!Box must be connected to the computer's USB port when the USB driver is removed.

Proceed as follows to remove the USB driver of FRITZ!Box in Windows Me/98:

1. Open "Start / Settings / Control Panel / System".

2. Click on the "Device Manager" settings page.

3. In the "Network adapters" section, select the "AVM FRITZ!Box" entry.

4. Then click the "Delete" button.

5. Confirm the uninstallation message by clicking "OK".

6. Follow the instructions displayed on the screen. Keep your Windows CD ready.

Rebooting the computer concludes the uninstallation.

5.3 Uninstallation in Windows 2000

Note that FRITZ!Box must be connected to the computer's USB port when the USB driver is removed.

Proceed as follows to remove the USB driver of FRITZ!Box in Windows 2000:

1. Open "Start / Settings / Control Panel / System" and select the "Device Manager" button on the "Hardware" settings page.

2. In the "Network adapters" section of the Device Manager, select the "AVM FRITZ!Box" entry.

3. In the "Action" menu, select the "Uninstall..." command.

4. Confirm the uninstallation in the following security prompt. The FRITZ!Box will be removed.

This completes uninstallation of the driver software of FRITZ!Box.

5.4   Removing the FRITZ!DSL Software

Removing FRITZ!DSL in Windows XP

Proceed as follows to remove the FRITZ!DSL software package in Windows XP:

1.   Open "start / Control Panel / Add or Remove Programs". Make sure that the "Change or Remove Programs" button is selected in the column to the left.

2.   Select the "AVM FRITZ!DSL" entry from the list of "Currently installed programs".

3.   Click the "Change/Remove" button.

This concludes the removal of FRITZ!DSL.

Uninstallation FRITZ!DSL in Windows Me and 98

Proceed as follows to remove the FRITZ!DSL software package:

1.   Open "Start / Settings / Control Panel / Add/Remove Programs".

2.   Select the "AVM FRITZ!DSL" entry from the list of "Currently installed programs".

3.   Click the "Add/Remove..." button.

Rebooting the computer concludes the uninstallation of FRITZ!DSL.

Removing FRITZ!DSL in Windows 2000

Proceed as follows to remove the FRITZ!DSL software package in Windows 2000:

1.   Open "Start / Settings / Control Panel / Add/Remove Programs". Make sure that the "Change or Remove Programs" button is selected in the column to the left.

2.   Select the "AVM FRITZ!DSL" entry from the list of "Currently installed programs".

3.   Click the "Change/Remove" button.

This concludes the removal of FRITZ!DSL.

6 Guidebook

The guidebook contains detailed instructions on the following subjects:

- Setting the IP address

- Access to remote computers or devices

- Errors Opening the User Interface

- DHCP Server

- Using FRITZ!Box with an Apple Computer

- Using FRITZ!Box in Linux

- Linking Up the Cable Network

6.1 Setting the IP Address

FRITZ!Box is equipped with its own DHCP server. This means that FRITZ!Box assigns the connected computers their IP addresses. The connected computers must be configured such that they can receive their IP addresses automatically from FRITZ!Box. The steps for checking and adjusting this option differ among the operating systems. See the relevant section for your operating system.

If FRITZ!Box is operated in a network, no other DHCP server may be activated in this network. If you need to operate a DHCP server, please disable the DHCP feature in the "Advanced System Settings".

Obtaining an IP Address Automatically in Windows XP

Proceed as follows in Windows XP:

1. Click "start / Control Panel / Network and Internet Connections / Network Connections". Double-click the LAN connection icon of the network adapter connected with FRITZ!Box to open the "Local Area Connection Status" window.

2. Click the **"Properties"** button.

3. Select "Internet Protocol (TCP/IP)" in the list of items used in this network connection and click "Properties".

4. Activate the options "Obtain an IP address automatically" and "Obtain DNS server address automatically".

Properties of the Internet protocol (TCP/IP)

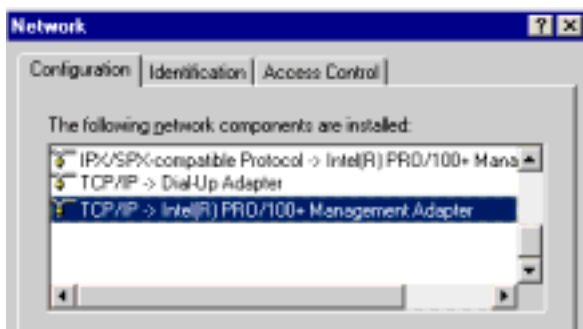5. Confirm your selection by clicking "OK".

The computer now receives an IP address from FRITZ!Box.

Obtaining an IP Address Automatically in Windows Me/98

Proceed as follows in Windows Me/98:

Keep your Windows CD handy, as this may be required for changes to your network settings.

1. Select "start / Settings / Control Panel / Add/Remove Programs".

2. Double-click the "Network" entry to open it.

3. In the list, double-click to select the binding "TCP/IP -> ‹network adapter bound to FRITZ!Box›".
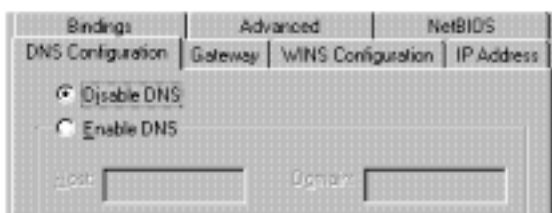
TCP/IP binding to a network adapter

4. Activate the option "Obtain an IP address automatically".
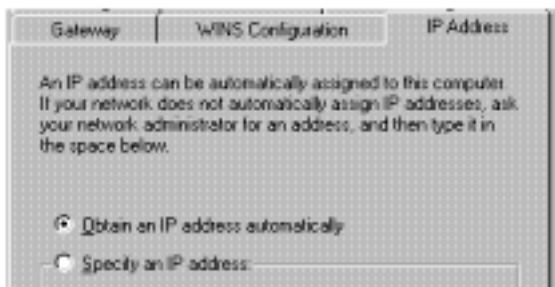
"Obtain an IP address automatically" option in Windows Me/98

5. On the "DNS Configuration" settings page, activate the "Disable DNS" option.

"Disable DNS" option in Windows Me/98

6. Confirm your selection by clicking "OK".

The computer now receives an IP address from FRITZ!Box.

Obtaining an IP Address Automatically in Windows 2000

Proceed as follows in Windows 2000:

1. Select "Start / Settings / Network and Dial-Up Connections".

2. Double-click to select the LAN connection with the network adapter bound to FRITZ!Box.

3. Click the "Properties" button.

4. Double-click to select "Internet Protocol (TCP/IP)" in the list of network components.
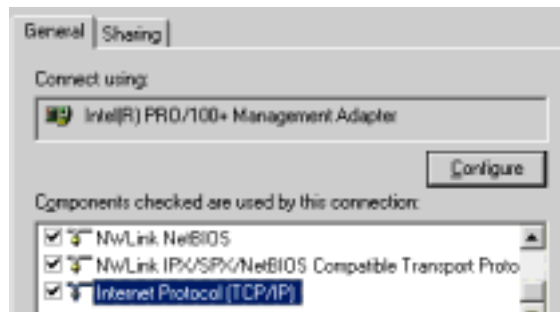
Properties of the LAN connection of a network adapter

5. Activate the options "Obtain an IP address automatically" and "Obtain DNS server address automatically".

"Obtain an IP address automatically" option in Windows 2000

6. Confirm your selection by clicking "OK".

The computer now receives an IP address from FRITZ!Box.

6.2   Access to Remote Computers or Devices

If several computers are connected to FRITZ!Box, you have access to any folders, drives or devices enabled for network sharing.

Determining the IP Address

Before you can access a computer enabled for network sharing, you must first find out the IP address of this computer. How to proceed depends on the operating system installed on the computer and whether it is connected to FRITZ!Box by means of the USB or the LAN interface.

To do so, proceed as follows:

Windows XP or 2000 at the USB Port

1. Click "Start / Run".

2. Enter "cmd" in the input field and confirm by clicking "OK".
    A cursor prompt appears.

3. Enter "ipconfig /all".

4. Look for the section in which "AVM FRITZ!Box" is listed under "Description". Make a note of the IP address listed there.

Windows XP or 2000 at the LAN Port

1. Click "Start / Run".

2. Enter "cmd" in the input field and confirm by clicking "OK".
    A cursor prompt appears.

3. Enter "ipconfig /all".

4. Look for the section that contains the network card used to connect the computer with FRITZ!Box under "Description". Make a note of the IP address listed there.

Windows Me or 98 at the USB Port

1. Click "Start / Run".

2. Enter "winipcfg" in the input field and confirm by clicking "OK".
    The "IP Configuration" window opens.

3. Select the device "AVM USB NDIS Miniport Driver". Make a note of the IP address listed there.

Windows Me or 98 at the LAN Port

1. Click "Start / Run".

2. Enter "winipcfg" in the input field and confirm by clicking "OK".
    The "IP Configuration" window opens.

3. Select the network card used to connect the computer with FRITZ!Box. Make a note of the IP address listed there.

Accessing a Connected Computer

See the Windows Help for information about how to release folders or devices for network sharing.

Proceed as follows to access the folders or devices that have been enabled for network sharing on a computer connected to FRITZ!Box:

1. Click "Start / Run".

2. Enter "\\<IP Address of the computer to be accessed>" in the input field.

In the next step an Explorer window opens, displaying the folders of the remote computer that have been enabled for sharing.

6.3 Errors Opening the User Interface

If an error message is returned when you open the user interface, please work through the following checklist:

- Make sure that all cables are connected properly and that the corresponding LEDs are lit:

    – Power and USB, if FRITZ!Box is connected to the computer via USB

    – Power and LAN, if FRITZ!Box is connected to the computer via a network cable

- The computers must obtain their IP address from FRITZ!Box (see "Setting the IP Address" on page 40).

- In the Internet browser, enter one of the following IP addresses in the place of "fritz.box":

    – 192.168.178.1

    – 192.168.179.1

    – 192.168.181.1

- No Internet connection may be established. (The "DSL" LED may not be lit.) Clear the Internet connection and exit FRITZ!web DSL or your Internet access program.

6.4 DHCP Server

FRITZ!Box is equipped with its own DHCP server. This option is activated by default. Every connected computer obtains an IP address assigned by the DHCP server.

The FRITZ!Box DHCP server assigns IP addresses from the following ranges:

Line	IP address
USB	192.168.179.20
LAN A	192.168.181.20 through 200
LAN B	192.168.178.20 through 200

Fixed IP Addresses

If you would like to assign fixed IP addresses to computers connected to FRITZ!Box, use the range between 201 and 250 for the host IP addresses.

Other DHCP Servers

If FRITZ!Box is operated in a network, no other DHCP server may be operated in this network. If you need to operate a DHCP server, please disable the DHCP feature in the "Advanced System Settings".

6.5 Using FRITZ!Box with an Apple Computer

FRITZ!Box can be connected to either the LAN port or the USB port of the Apple computer.

Check whether your computer is equipped with a LAN port. A LAN port is usually designated by the icon at left or labeled "LAN".

If your computer is not equipped with a LAN port, connect FRITZ!Box using the USB port.

An operating system version of 10.3.3 or higher is required to connect FRITZ!Box to the USB port. If you work with an older version, connect FRITZ!Box via the LAN port of your computer.

If you would like to connect multiple computers to FRITZ!Box, you can use both connection methods. FRITZ!Box can also be connected to the uplink port of a network hub or switch.

Connecting to the LAN Port

FRITZ!Box is configured as a DSL modem by default.

If the Internet connection is to be used jointly by all connected computers, FRITZ!Box must be switched from modem operation to router operation.

Using FRITZ!Box as a DSL Modem

1. Connect FRITZ!Box to the network adapter of the Apple computer (see "Connecting FRITZ!Box to the LAN Port" from page 21).

2. Install an Internet software package that can establish DSL connections with the PPPoE (PPP over Ethernet) protocol.

3. Enter in this Internet access software the access information provided by your DSL Internet Service Provider.

In Mac OS X, PPPoE for establishing DSL Internet connections is already integrated into the operating system For information about configuring PPPoE in Mac OS X, see the following Internet page:
http://docs.info.apple.com/article.html?artnum=106716.

Using FRITZ!Box as a DSL Router

1. Connect FRITZ!Box to the network adapter of the Apple computer (see "Connecting FRITZ!Box to the LAN Port" from page 21).

    or

    Connect FRITZ!Box to the hub of the network in which the Apple computer is located (see "Connecting FRITZ!Box to a Network Hub or Switch" from page 23).

2. Configure FRITZ!Box for operation as a DSL router (see "Setting up FRITZ!Box for Multiple-Workplace Operation" from page 28).

3. Make sure that the network adapter of the Apple computer automatically obtains its TCP/IP settings from FRITZ!Box. To allow this, DHCP must be enabled for the network adapter:

TCP/IP Properties for Mac OS X

1. Select the "System Preferences" in the Apple Menu.

2. In the "System Preferences" window, click the "Network" icon.

3. In the "Network" window, select the "Built-in Ethernet" entry from the "Show:" drop-down menu.

4. Switch to the "TCP/IP" settings page and select the "Using DHCP" entry from the "Configure:" drop-down menu.

5. Click "Apply Now".

TCP/IP Properties for Mac OS 9

1. Select the "Control Panels / TCP/IP" in the Apple Menu.

2. In the "TCP/IP (Default)" window, select the "Connect via: / Ethernet" entry in the drop-down menu.

3. In the "Configure:" drop-down menu, select the "DHCP Server" entry.

4. Close the "TCP/IP (Default)" window and click "Close".

5. Restart your computer.

Connecting to the USB Port

FRITZ!Box is configured as a DSL modem by default.

If the Internet connection is to be used jointly by all connected computers, FRITZ!Box must be switched from modem operation to router operation.

Using FRITZ!Box as a DSL Modem

1. Connect FRITZ!Box to the computer's USB port.

2. Select "System Preferences / Network". You receive the message that a new port "Ethernet port en‹No.›" was found. Confirm the message by clicking "OK".

3. Under "Show:", select the new port found, "Ethernet port en‹No.›".

4. Select the "PPPoE" button and enter the access data for your Internet connection.

5. Confirm your entries with "Apply Now".

Using FRITZ!Box as a DSL Router

1. Connect FRITZ!Box to the computer's USB port.

2. Select "System Preferences / Network". You receive the message that a new port "Ethernet port en‹No.›" was found. Confirm the message by clicking "OK".

3. Under "Show:", select the new port found, "Ethernet port en‹No.›".

4. Confirm your entries with "Apply Now".

5. Start a Web browser (Safari, for example) and enter "fritz.box" or "192.168.178.1" as the address to start the FRITZ!Box user interface.

6. Configure FRITZ!Box for operation as a DSL router (see "Setting up FRITZ!Box for Multiple-Workplace Operation" from page 28).

6.6 Using FRITZ!Box in Linux

FRITZ!Box can also be used with the Linux operating system. You can connect FRITZ!Box to your computer by means of a network cable or a USB cable.

Connecting to the LAN Port

The example of SUSE Linux 9.0 is used here to describe how to install FRITZ!Box with a network adapter in Linux.

1. If the network adapter has not been configured yet, configure it by means of YaST using the "DHCP" setting.

2. Connect FRITZ!Box to the network adapter (see "Connecting FRITZ!Box to the LAN Port" on page 21).

3. Use the "ifconfig -a" command to check whether your network adapter has been assigned an IP address. This operation may take a few moments. Here is an example of the output for a successful IP address assignment:

```
etho   Protocol:Ethernet HWaddr 00:04:75:4D:52:92

       inet addr:192.168.178.3 Bcast:192.168.178.255
       Mask:255.255.255.0

       ...
```

4. Start a Web browser (Konqueror, Mozilla or Opera, for example) and enter "http://fritz.box" or "192.168.178.1" as the address to start the FRITZ!Box user interface.

5. The "FRITZ!BoxOverview" window is opened.

For comprehensive information and tips on the topic of net-work configuration in Linux, see: http://www.linux.org/docs/ldp/howto/Net-HOWTO/.

FRITZ!Box is configured as a DSL modem by default.

If the Internet connection is to be used jointly by all connected computers, FRITZ!Box must be switched from modem operation to router operation.

Configuration as a DSL Modem

1. Click the "Internet Connection" command in the "FRITZ!Box Overview" window.

2. Select the menu command "Internet Connection / Connected Computers Use FRITZ!Box as a DSL Modem" and apply this setting.

3. Start the YaST Control Center (Superuser rights required).

4. Select the option "Network Devices" and click "DSL."

5. The "DSL Configuration" dialog appears.

6. In the section "DSL Devices to Configure", select the device "Unknown DSL device (PPPoE) detected" and click the "Configure..." button.

7. The dialog "Overview of the DSL Configuration" appears. Select "DSL Devices / Add".

8. In the input mask "DSL configuration", the "PPP mode" should be set to "Ethernet", for "Ethernet card" click the "Configure Network Cards" button and select "Other (not detected)". Then click "Configure...".

9. The "Device type" in the "Manual Network Adapter Configuration" window should be set to "Ethernet". Confirm with "Next".

10. In the "Network address setup" window, clickt the "Advanced..." button and select "Detailed Settings". Under "Device Activation", select "At Boot Time". Confirm by clicking "OK".

11. Click "Next" to configure your Internet connection. Follow the instructions and save your entries with "Finish".

12. Click the plug icon (KInternet) to dial into the Internet. It may be necessary to click on the plug icon with the right mouse button to enable the DSL interface and your Internet connection.

Configuration as a DSL Router

1. Click the "Internet Connection" command in the "FRITZ!Box Overview" window.

2. Activate the option "FRITZ!Box provides an Internet connection that can be shared (router)".

3. Enter the access information you received from your Internet Service Provider in the corresponding fields.

4. The timer and port forwarding settings can also be configured here.

5. Apply your settings.

FRITZ!Box is now configured for multiple-workplace operation. All connected computers can access the Internet directly. FRITZ!Box provides the Internet connection for all connected computers.

Connecting to the USB Port

The example of SUSE Linux 9.0 is used here to describe how to install FRITZ!Box to the USB port in Linux.

1. Connect FRITZ!Box to the USB port (see "Connecting FRITZ!Box to the USB Port of a Computer" on page 14).

2. Open the YaST Control Center.

3. Select the option "Network Devices" and click "Network Card".

4. The "Network card configuration" dialog appears.

5. Select "Other (not detected)" and the "Configure..." button.

6. The device type of the network in the "Manual network card configuration" window should be set to "Ethernet". Select the "USB" check box as well and click "Next".

7. In the next dialog, "Network address setup", select the "Automatic address setup (via DHCP)" option. Click "Next".

8. In the input mask "Network cards configuration", the "PPP mode" should be set to "Ethernet", for "Network Adapter" select "Other (not detected)". Then click "Configure".

9. Changes to the configuration take effect when the "Finish" button is clicked.

In SUSE Linux 9.0 only one Ethernet adapter at a time can be set to DHCP. If you have an additional network adapter, assign it a fixed IP address. Otherwise problems may arise with name resolution (cf. /etc/resolv.conf). If the "USB" LED on the FRITZ!Box is not lit now, it may be necessary to restart the hotplug subsystem, as it is not always possible to apply all changes at once.

1. Open a console by logging in as a Superuser.

2. Enter the command "/etc/init.d/hotplug restart". The "USB" LED on FRITZ!Box should now be lit.

3. Start a Web browser (Konqueror, Mozilla or Opera, for example) and enter "http://fritz.box" or "192.168.178.1" as the address to start the FRITZ!Box user interface.

4. The "FRITZ!BoxOverview" window is opened.

For comprehensive information and tips on the topic of network configuration in Linux, see:
http://www.linux.org/docs/ldp/howto/Net-HOWTO/.

Configuration as a DSL Router (Routing Mode)

1. Under the "Internet Connection" command, select the subcommand "FRITZ!Box provides an Internet Connection that can be shared (router)".

2. Enter the access information you received from your Internet Service Provider in the corresponding fields.

3. The timer and port forwarding settings can also be configured here.

4. Apply your settings.

FRITZ!Box is now configured for multiple-workplace operation. All connected computers can access the Internet directly. FRITZ!Box provides the Internet connection for all connected computers.

Configuration as a DSL Modem

1. Select the menu command "Internet Connection / Connected Computers Use FRITZ!Box as a DSL Modem" and apply this setting.

2. Start the YaST Control Center (Superuser rights required).

3. Select the option "Network Devices" and click "DSL."

4. The "DSL configuration" dialog appears. In the section "DSL Devices to Configure", select the device "Unknown DSL device (PPPoE) detected" and click the "Change..." button.

5. The dialog "DSL onfiguration overview" appears. Select "DSL Devices / Add".

6. In the "DSL configuration" input mask, the "PPP mode" should be set to "PPP over Ethernet". Select the entry "eth-usb" as the "Ethernet card".

7. Next click "Next" to configure your Internet connection. Follow the instructions and save your entries with "Finish".

8. Click the plug icon (KInternet) to dial into the Internet. It may be necessary to click on the plug icon with the right mouse button to enable the DSL interface and your Internet connection.

Make sure that no other default gateway was defined, because otherwise the address "fritz.box" may not be found.

6.7 Connecting Cable

It is possible to lengthen the cables of FRITZ!Box. Remember that the quality of the line may be decrease as the distance from the central switching station increases.

Note the following maximum cable lengths:

- maximum length of the network cable: 100 m, use a CAT 5 cable.

- maximum length of the USB cable: 5 m

- maximum length of the DSL cable: 20 m, use a CAT 5 cable.

7 Information, Updates and Support

AVM provides numerous sources of information to assist you if any questions or problems arise. Here you will find the important information you need, in the form of manuals, updates and support.

In many cases problems which arise during operation can be resolved by installing the current Microsoft Service Pack for your operating system. The current service pack can be obtained directly from Microsoft.

7.1 Sources of Information

To take advantage of all commands and features of your FRITZ!Box, consult the following information resources:

Documentation

FRITZ!Box includes comprehensive documentation in a variety of formats:

- FRITZ!Box
  The Installation Manual is included in the FRITZ!Box package. It contains information about installation and starting operation of FRITZ!Box.

- The FRITZ!Box User's Manual
  The FRITZ!Box User's Manual is provided as a PDF file. The manual is included in the "Info" folder on the FRITZ!Box CD.

  Especially after a firmware update it is a good idea to download an updated version of the user manual from the Internet. New functions of the FRITZ!Box are documented in an up-to-date user manual.

  The latest version of the manual is available at the following address:

  www.avm.de/en/service/manuals

- Readme for FRITZ!Box
  The Readme file contains current information which was not yet available at the time the manual was printed. The Readme file is included on the FRITZ!Box CD.
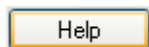
- Help for FRITZ!Box
  In the FRITZ!Box GUI you can open the detailed Online Help by clicking the "Help" buttons.

Internet

AVM provides comprehensive information on the AVM home page. Enter the following address:

www.avm.de/en/

- Click "Products" for the latest information about all AVM products as well as announcements of new products and product versions.

- The "Service" area contains the current manuals for all AVM products.

7.2 Updates

AVM makes new drivers for FRITZ!Box and updates for the PBX software available free of charge over the Internet.

Use one of the following options for downloading:

- by Internet at:
  www.avm.de/en/download

- via the AVM FTP server:
  www.avm.de/ftp

For instructions about how to load new firmware on the computer and perform an update, see the section "System Settings" on page 34.

7.3 Assistance from AVM Support

Please take advantage of the information sources described above before contacting AVM support.

AVM's Support team is at your service with direct help when problems arise, during installation, the initial configuration and your first steps in operating the FRITZ!Box.

The support desk can be reached by e-mail or by fax. AVM Support then will contact you to assist in solving your problem. You will receive an e-mail or a fax.

Support by E-mail

Support requests can be sent to AVM by e-mail. Please use the AVM Support request form at:

www.avm.de/en/service/support

Select the product for which you require technical support. Fill out the form and send it to AVM support by clicking the "Send" button.

Support by Fax

If necessary, you can reach AVM Support at the telephone number:

+49 (0)30 / 39 97 62 66

Have your "Product Identification Code" ready when you call. This code is printed on the CD case. Support staff will always check this number to ensure that you are a registered user.

Prepare the following information for your Support consultant:

● Which operating system are you using (e.g., Windows XP or Windows 98?)

● Is FRITZ!Box connected using the USB cable or the network cable?

● At what step of the installation or in which application does an error message appear? What is the exact wording of the message?

- With which USB driver version is FRITZ!Box installed? See the Device Manager for the version number.

- Which Firmware does FRITZ!Box use? The Firmware version is displayed on the "DSL Info" page of the FRITZ!Box user interface.

Once you have gathered this information, please fax it to AVM Support. The Support team will assist you in resolving your problem.

Index

A

access information   24
Apple computers   48
AVM support   57

B

broadband connection, Windows
   XP   27

C

cable lengths   56
cables
    DSL   8, 13
    network   8, 9
    USB   8, 12, 51
configuring FRITZ!Box   31
connecting
    to a network hub   23
    to DSL   13
    to power supply   13
    to the LAN port   21
    to USB port   14
conventions   5

D

declaration of CE conformity   63
device drivers   14
DHCP server   35, 40
documentation   57
drilling template   8
DSL cable   8, 13
DSL line   13
DSL modem   24, 48, 50, 52
DSL software   24
DSL, LED   10

F

factory settings   35
    restoring   35
firewall   8, 11
FRITZ!Box
    configuring   31
    going online with   24
    mounting   12
    starting operation   12
FRITZ!DSL   24
FRITZ!web DSL
    operating   26

G

game console   9
game consoles   7

H

hub   9, 48

I

Info, LED   10
information sources   57
installation
    at the USB Port   14, 16, 17, 19
    in Windows 2000   17
    in Windows 98   19
    in Windows Me   16
    in Windows XP   14
Installation Help   8
installation prerequisites   9
IP address   40
    dynamic   30
IP masquerading   11

L

LAN, LED   10
LED   10
LEDs   10, 11

Declaration of CE Conformity

The manufacturer AVM GmbH

Address Alt-Moabit 95

D-10559 Berlin

herewith declares that the product

Product FRITZ!Box

Type ADSL-Controller

complies with the following directives:

- 1999/5/EEC R&TTE Directive:
  Radio Equipment and Telecommunications Terminal Equipment
- 89/336/EEC EMC Directive:
  Electromagnetic Compatibility
- 73/23/EEC Low Voltage Directive:
  Electrical equipment designed for use within certain voltage limits

The following norms were consulted to assess conformity:

- CTR 3/1998.06.17
- EN 55022/9.98 Class B
  EN 55024/9.98
- EN 60950/2000
  EN 41003/1998
- ITU-T G.992.1, ITU-T G.994.1, ETSI ETR328

CE The CE symbol confirms that this product conforms with the above mentioned norms and regulations.

Berlin, 19.01.2004 Peter Faxel, Technical Director